

REMARKS

Claims 1-6 are pending and have been examined. Claims 1 - 6 stand rejected under 35 U.S.C. 103(a) as being obvious over Applicant's admitted prior art (AAPA) in view of Rich and further in view of Hassan. Applicant requests reconsideration and withdrawal of the rejection.

Claims 1 and 5 were rejected by the Office Action as being obvious over the AAPA in view of Rich and further view of Hassan. It is axiomatic that to establish a *prima facie* case of obviousness the Office Action must show that each and every limitation of the claims is met by the combined references.

Claims 1, 3 and 5 are independent claims. Each of claims 1 and 5 requires circuitry for "comparing reception characteristics of reception signals received from the plurality of users prior to interference cancellation processing with reception characteristics upon the interference cancellation processing." Claim 3 requires "a preliminary demodulation section for obtaining, in advance, reception characteristics of demodulated reception signals received from a plurality of users prior to interference cancellation processing, and notifying respective subsequent interference cancellation stages of the obtained data."

According to the present application, a variable gain amplifier is controlled using an AGC controller. The AGC controller receives two inputs, one input from a level detector and another input from a reception quality collector. The reception quality detector is shown in Figures 4, 5, and 6 of the present application. The interference canceller/demodulator unit receives the baseband signal from the A/D converter. This baseband signal is presented to a preliminary demodulator and each

of the interference replica generation and cancellation units. As shown in Figure 6, a transmission line estimator extracts the transmission line characteristics of a despread signal. The signal from the transmission line estimator is compared to a signal received from the preliminary demodulator stage 28 shown in Figure 5. The output of this comparison unit for each of the stages is sent to reception quality collector 17. This circuit is explicitly recited in independent claims 1, 3, and 5.

The AAPA and Rich fail to disclose or suggest the above-quoted limitations. The AAPA and Rich do not disclose the comparison of the demodulator signal with the output of an interference canceller/demodulator unit. Additionally, there is not an interference canceller/demodulator unit explicitly disclosed in Rich. In Rich, signal processor 14 processes the demodulated signal to produce a process signal at the information output. The signal processor in Rich generally includes, for example, a channel decoder, arrow detection/correction, audio processor, and data processor. However, the signal processor is not an interference canceller/demodulator unit as explicitly recited in applicant's claim.

Further, in Applicant's independent claims, the incoming signal is modified based on the base band level and the output of the interference canceller. Thus, the combination of the AAPA and Rich fails to disclose Applicant's explicitly recited claims and said claims should be allowed.

It should be noted that in applicant's claims, the quality of the signal before each interference cancellation operation is compared with the quality of the signal after each interference cancellation operation. The degree of improvement of the reception characteristics of the interference cancellation processing is measured.

The AGC correction is performed to maintain a specific bit accuracy. Thus, optimal reception characteristics are obtained using the present invention.

As the Applicant has respectfully pointed out, The AAPA and Rich is deficient as a reference with respect to the above-quoted limitations of claims 1, 3 and 5. Hassan does not cure the deficiencies of the AAPA and Rich with respect to the above-quoted limitations, nor was Hassan cited by the Office Action for that purpose. Rather, Hassan was cited by the Office Action as teaching other limitations that the Office Action noted were missing in Rich. Regardless of whether or not Hassan discloses these other limitations, the combination of the AAPA, Rich and Hassan still fails to disclose the above-mentioned limitations of claims 1, 3, and 5.

For these reasons, the Applicant respectfully requests reconsideration of the rejection of claims 1, 3 and 5.

Claim 2 depends from, and contain all the limitations of claim 1. This dependent claim also recite additional limitations which, in combination with the limitations of claim 1, are neither disclosed nor suggested by the AAPA, Rich and Hassan and is also directed towards patentable subject matter. Thus, claim 2 should also be allowed.

Claim 4 depends from, and contain all the limitations of claim 3. This dependent claim also recite additional limitations which, in combination with the limitations of claim 1, are neither disclosed nor suggested by The AAPA, Rich and Hassan and is also directed towards patentable subject matter. Thus, claim 4 should also be allowed.

Claim 6 depends from, and contain all the limitations of claim 5. This dependent claim also recite additional limitations which, in combination with the limitations of claim 5, are neither disclosed nor suggested by the AAPA, Rich and Hassan and is also directed towards the patentable subject matter. Thus, claim 6 should also be allowed.

Applicant has responded to all of the rejections and objections recited in the Office Action. Reconsideration and a Notice of Allowance for all of the pending claims are therefore respectfully requested.

In view of the above, each of the presently pending claims in this application is believed to be in immediate condition for allowance. Accordingly, the Examiner is respectfully requested to withdraw the outstanding rejection of the claims and to pass this application to issue.

If the Examiner believes an interview would be of assistance, the Examiner is welcome to contact the undersigned at the number listed below.

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Respectfully submitted,

By 

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